

PATENT ABSTRACTS OF JAPAN

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(54) DIMMER DEVICE FOR SELF-EMISSION TYPE PICTURE DISPLAY

(57)Abstract:

PURPOSE: To keep the "brightness" of a display image constant regardless of the luminance environment at the outside of a display device and the luminance of a display picture itself by providing an equivalent light screen luminance measuring device measuring an equivalent light screen luminance to a light screen luminance in an eyeball of an observer decided by the luminance environment around a display image observed by the observer and a fovea centralis adaptation luminance measuring device measuring the fovea centralis adaptation luminance of the eyeball of the observer.

CONSTITUTION: The light screen luminance L_{ev} equivalent to the light screen luminance in the eyeball of the observer decided by the luminance environment of the display image including a picture around the display image on a CRT display 5 is measured by the equivalent light screen luminance measuring device 6. On the other hand, the fovea centralis adaptation luminance L_f of the observer is measured by the fovea centralis adaptation luminance measuring device 9. A luminance difference discriminating threshold value ΔL of the observer is obtained by adding an output signal of the 1st function converter 7 and an output signal of the 2nd function converter 10 at an adder 8. A dimmer 11 controls the luminance of the display image in proportion to the output signal of the adder 8. When the luminance environment of the surrounding is changed, the luminance L_o of the display image is controlled so that the ratio ($L_o/\Delta L$) of the luminance L_o of the display image to the luminance difference discriminating threshold value ΔL of the observer is constant.

